

**R E M A R K S**

With respect to Item No. 1 at the top of page 2 of the Office Action under the heading "Priority," it is noted that copies of the priority documents were mailed to the USPTO by the applicants on June 1, 2004.

The Examiner is respectfully requested to indicate whether the drawings have been accepted, since such is not clear from Item No. 10 on page 1 of the Office Action.

USP 5,753,328 to Miyazawa et al. was cited in a prior art rejection in Item No. 59 on page 13 of the Office Action. However, Miyazawa et al. was not cited on the Form PTO-892 which was attached to the Office Action. The Examiner is therefore respectfully requested to provide a further Form PTO-892 which lists Miyazawa et al.

Item No. 9 on page 1 of the Office Action stated that the specification was objected to. However, no objection to the specification is set forth on the remaining pages of the Office Action.

Claims 1 to 2, 15 and 16 were amended to include the features of claim 14. The above amendments to claims 28 and 29

involving the term "1:2 chromium complex" are discussed hereinbelow. The other claim amendments involve only minor editorial revisions.

New claim 30 is supported in the specification by Tables 2, 4, 6, 8 and 10.

Claims 28 and 29 were rejected under 35 USC 112, second paragraph, for the reasons indicated in Item No. 4 bridging pages 2 and 3 of the Office Action. This rejection concerned the term "1:2 complex chromate."

The applicants have informed the undersigned that the term "1:2 complex chromate" is incorrect, and the correct term is "1:2 chromium complex." The specification and claims 28 and 29 were amended to recite the correct term, namely "1:2 chromium complex." It is respectfully submitted that the amendments involve an obvious correction of an obvious error for the following reasons:

1:2 = chromium atom : azo dye molecule

1:2 chromium complex dyes are well-known in the field of dyes. The term "1:2 chromium complex dyes" is found in the titles of USP 4,874,849; USP 5,667,534; USP 5,853,431 and USP

6,210,448. The first page of each of these patents is enclosed.

The color pigment of claim 29 is a mixture of a 1:2 chromium complex and phthalocyanine. As recited in claim 29, the mass ratio of the 1:2 chromium complex to phthalocyanine is 10:1.

In view of the above, it is respectfully submitted that one of ordinary skill in the art would know that the correct terminology is "1:2 chromium complex."

Claims 1, 2, 4, 6 to 7, 9, 11, 14 to 16, 18 and 20 to 25 were rejected under 35 USC 102 as being anticipated by Takahashi et al. (EP 1 174 457) for the reasons set forth in Item Nos. 6 and 7 beginning at the middle of page 3 and continuing to the top of page 4 of the Office Action.

Regarding birefringence, Takahashi et al. EP 1 174 457 disclose the following in paragraph [0020] on page 4 of the Office Action:

"From the point of view of the lamination and fabrication properties, the difference between the film lengthwise direction refractive index ( $n_x$ ) and the widthwise direction refractive index ( $n_y$ ) of the biaxially-oriented polyester film for fabrication of the present invention (the birefringence:  $\Delta n = n_x - n_y$ ) preferably lies in the range -0.001 to 0.050, preferably  $\Delta n$  lies in the range -0.005 to 0.02."

However, Takahashi et al. do not disclose the following features of the presently claimed invention:

(A) A laminate layer positioned on an inner surface side of the container having a region where a birefringence is 0.02 or less, at a contact interface with a metal sheet.

(B) The aforesaid region being less than 5  $\mu\text{m}$  from a contact interface with the metal sheet in the thickness direction.

In the presently claimed invention, the adhesion property is improved by satisfying the above item (A) (see the present specification on page 24, line 27 to page 25, line 23).

Moreover, the adhesion property, the processability and the impact resistance are maintained at high levels by satisfying the above items (A) and (B) (see the present specification on page 27, line 18 to line 24).

Claims 1 to 7 and 15 to 25 were rejected under 35 USC 103 as being unpatentable over Kuze et al. (JP 7-109363) in view of Markfort et al. (USP 5,451,304) for the reasons set forth in Item Nos. 9 to 25 on pages 4 to 8 of the Office Action.

It was admitted in Item No. 18 on page 6 of the Office Action that the above combination of references does not

explicitly teach the requirement in claim 1 that the polarity force component  $\gamma_s^h$  be  $4 \times 10^{-3}$  N/m or less.

It was also admitted in Item No. 21 on page 7 of the Office Action that with respect to applicants' claim 6, Kuze et al. as modified by Markfort et al. do not explicitly teach the amount of wax in the polyester resin film on the inner surface of the container is 0.8 to 2 mass %.

Claims 8 to 11 were rejected under 35 USC 103 as being unpatentable over Kuze et al. and further in view of Iwasa et al. (JP 2000-158585) for the reasons stated in Item Nos. 26 to 34 on pages 8 and 9 of the Office Action.

It was admitted in Item No. 27 on page 8 of the Office Action that Kuze et al. as modified by Markfort et al. do not teach the features of claim 8, i.e., the polyester film having a benzene carbon relaxation time of 150 msec or longer.

It was also admitted in the Office Action that Kuze et al. as modified by Markfort et al. do not teach the features of applicants' claim 11 to comprise 95 mol% or more of ethylene terephthalate units.

Claims 9, 10, 12 and 13 were rejected under 35 USC 103 as being unpatentable over Kuze et al. as modified by Markfort et al. and further in view of Iwasa et al. for the reasons indicated in Item Nos. 35 to 58 beginning at the bottom of page 9 and continuing to the bottom of page 13 of the Office Action.

It was admitted in Item No. 36 at the top of page 10 of the Office Action that Kuze et al. modified by Markfort et al. do not teach the features of applicants' claim 9, which recites that the resin film is a biaxially oriented polyester film having a melting point of 240° to 300°C, wherein the content of a terminal carboxyl group is 10 to 50 equivalent/ton, and an isophthalic acid component is not substantially contained as an acid component.

It was admitted in Item No. 42 at the top of page 11 of the Office Action that Kuze et al. as modified by Markfort et al. do not teach the features of applicants' claim 10, namely that the resin film is a biaxially oriented polyester film having an amorphous Young's modulus of 120 to 220 kg/m<sup>2</sup>.

It was admitted in Item No. 48 bridging pages 11 and 12 of the Office Action that Kuze et al. as modified by Markfort et al.

do not teach the features of applicants' claim 12, namely wherein the resin film is a biaxially oriented film having 93 mol% or more ethylene terephthalate units and having a crystal size  $\lambda$  in a (100) plane obtained through an X-ray diffraction measurement of 0.6 nm or smaller.

It was admitted in Item No. 54 bridging pages 12 and 13 of the Office Action that Kuze et al. as modified by Markfort et al. do not teach the features of applicants' claim 13, namely a resin film which is a biaxially oriented film having 93 mol% or more ethylene terephthalate units and having a crystal orientation parameter R obtained through an X-ray diffraction measurement of  $20 \times 10^{-2}$  or more.

Claims 26 and 27 were rejected under 35 USC 103 as being unpatentable over Kuze et al. as modified by Markfort et al. and further in view of Tanaka (USP 6,217,994) for the reasons set forth in Item Nos. 65 to 70 beginning at the bottom of page 14 and continuing to the bottom of page 15 of the Office Action.

It was admitted in Item No. 66 at the top of page 15 of the Office Action that Kuze et al. as modified by Markfort et al. do not teach the features of applicants' claims 25 and 26, wherein

the resin film on the inner surface of the container contains an aromatic diamine base organic pigment (claim 26) or a benzimidazolone pigment (claim 27).

Claim 14 is not included in any of the above obviousness rejections. The features of claim 14 are now recited in applicants' independent claims 1, 2, 15 and 16.

Claim 14 was rejected under 35 USC 103 as being unpatentable over Kuze et al. as modified by Markfort et al. and further in view of Miyazawa et al. (USP 5,753,328) for the reasons set forth in Item Nos. 59 to 64 on pages 13 and 14 of the Office Action.

It was admitted in Item No. 60 bridging pages 13 and 14 of the Office Action that Kuze et al. as modified by Markfort et al. do not teach the features of applicants' claim 14.

Regarding polarity force component  $\gamma^h$ , Kuze et al. JP 07-109363 and Markfort et al. USP 5,451,304 do not teach or suggest a surface of a resin film having a polarity force component  $\gamma^h$  of a surface free energy as recited in applicants' claims.

Takahashi et al. EP 1 174 457 disclose a surface free energy of 20 to 40 mN/m. However, Takahashi et al. do not disclose that a polarity force component  $\gamma^h$  of a surface free energy of a



surface of the resin film is  $4 \times 10^{-3}$  N/m or less, as recited in applicants' claims.

The surface free energy is separated into a dispersion force component  $\gamma_s^d$  and a polarity force component  $\gamma_s^h$ . The dispersion force component  $\gamma_s^d$  is a central force of a low intermolecule attraction force working between molecules of all types containing nonpolar molecules. The dispersion force component  $\gamma_s^d$  is a so-called "Van der Waals" force, i.e., a central force of a low intermolecule attraction force working as a central force between molecules of all types containing nonpolar molecules. The polarity force component  $\gamma_s^h$  is a strong interaction force working between polar groups represented by hydrogen bonding (see the present specification on page 18, lines 7 to 21).

Therefore, the dispersion force component  $\gamma_s^d$  and the polarity force component  $\gamma_s^h$  are independent parameters. There is no interrelation between the dispersion force component  $\gamma_s^d$  and the polarity force component  $\gamma_s^h$ . Accordingly, the polarity force component  $\gamma_s^h$  cannot be derived from the surface free energy.

Miyazawa et al. USP 5,753,328 disclose in column 6, lines 27 to 30 that the double refraction  $\Delta n_3$  on the side contacting the metal sheet should be from 0.005 to 0.080.

However, Miyazawa et al. do not disclose the following feature of the presently claimed invention: a region, where a birefringence of the resin film positioned on the inner surface side of the container after formation of the container is 0.02 or less, is less than 5  $\mu\text{m}$  from the contact interface with the metal sheet in the thickness direction.

Further, Miyazawa et al. do not teach or suggest the improvement of the processability and the impact resistance as attained by the presently claimed invention.

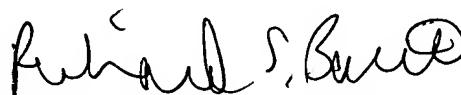
It is therefore respectfully submitted that applicants' claimed invention is not anticipated and is not rendered obvious over the references, either singly or combined in the manner relied upon in the Office Action in view of the many distinctions discussed hereinabove. It is furthermore submitted that there are not teachings in the references to combine them in the manner relied upon in the Office Action.

Reconsideration is requested. Allowance is solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Frishauf, Holtz, Goodman  
& Chick, P.C.  
767 Third Ave., 25th Floor  
New York, NY 10017-2023  
Tel. Nos. (212) 319-4900  
(212) 319-4551/Ext. 219  
Fax No.: (212) 319-5101  
E-Mail Address: BARTH@FHGC-LAW.COM  
RSB/ddf

Respectfully submitted,



Richard S. Barth  
Reg. No. 28,180

Encs.: (1) PETITION FOR EXTENSION OF TIME  
(2) copies of the first pages of each of  
USP 4,874,849; USP 5,667,534;  
USP 5,853,431 and USP 6,210,448